Alternate EMMA Configurations in the Tune Plane

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Tune Footprints of Alternate Configurations

- Plot tunes over the entire energy range along with resonance lines
- Look at lines to order 3
- Tunes move parallel to resonance some lines: $\nu_x - 2\nu_y = 0$, $\nu_x - \nu_y = 0$, $2\nu_x - \nu_y = 0$
  - Change which of these we lie between or cross
  - 4 regions, but can't really get to left of $2\nu_x - \nu_y = 0$
  - May be tough to get below $\nu_x - 2\nu_y = 0$
  - Try half way between red and green: poor performance on red
- Cross other lines: $3\nu_x = 1$, $2\nu_x + \nu_y = 1$, $\nu_x + 2\nu_y = 1$, $3\nu_y = 1$
  - Vary whether we cross these
  - May be tough not to cross $3\nu_x = 1$ when below $\nu_x - \nu_y = 0$ (similar for other side)

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